Work Order ID 60530 Tuesday, July 13, 2010 11:29:36 AM									Page		
Revision ID:	4-201TRN Turning Detail	A	ccept				se se	1	tart		
Start Date: 7/13/2010 Required Date: 7/26/2010 Reference:	O Start Qty: 1.00	1 188181 1881 1881 1 188181 1881 1881		Cust Ite				:	1	IO)O IIO (IBI IBOI	
Approvals: Process QC:	2	Pate: 16713 Pate:	Tooling: SPC (Y/N):		Date:		R	i	+an		
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool II	D Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
	Revision Nbr				1	,		1		1	
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100  Mori Seiki  Mori Seiki CNC Lathe Large	MORI SEIKI CNC LATHE L  Memo  1-Fill tube with s	ARGE . and & install plugs DT8	0.00 0.00	por Eolio EA114			G.M		- 07	190	
Non sein eine Eure Eure		as per Folio FA114	554 On both ends as p	E FOIIO FAT14	1		! -	(		: :	
	QC1- Inspect dimensions to d	imension sheet	0.00		i			ا : اح ر	- 07	15 M	
QC Quality Control	Мето		0.00						) - 07	-/10	
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	MORI SEIKI CNC LATHE L	ARGE			1		ON	'/(	) - 0 <sup>7</sup>	-19/1	
Mori Seiki Mori Seiki CNC Lathe Large	2- File transition 3-Remove sand a		0.00		·						

Dart Aerospace	e Ltd
W/O:	

W/O:			V	ORK ORDER CHANG	GES					•
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Part No		PAR #:	Fault Ca	tegory:	NCF	R: Yes	No <b>DQ</b>	<u> </u>	_ Date: _	
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DATE	STEP	Description of NC	Corrective Action Section			Ciam 0	Verific		Approval	Approval
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#### Work Order ID 60530

Tuesday, July 13, 2010 11:29:36 AM

7/13/2010



Page 2

Item ID: D212-664-201TRN **Revision ID:** Item Name:

Crosstube Turning Detail

Process Plan:

Required Date: 7/26/2010

Start Oty: 1.00 Req'd Qty: 1.00

Date:\_\_\_\_\_

Date:

**Cust Item ID:** Customer:

Tool ID

Date:

Date:

Tool # Plan

Code<sup>1</sup>



Sequence ID/

**Start Date:** 

Reference:

Approvals:

Work Center ID 130

Quality Control

Operation Description

QC1- Inspect dimensions to dimension sheet

Set Up/ **Run Hours** 

0.00

Tooling:

SPC (Y/N):

Accept

0.00

140 

Quality Control

QC8- Inspect parts - second check

Memo

0.00

Memo

0.00

Crosstubes Chemical Conversion

0.00

HandFXtube

150

Hand Finishing Crosstubes

Memo

0.00

Chemical Conversion Coat as per within 24 hours of machining

Start

Stop

Setup Start



Stop

Reject

Qty |

Reject Insp.

Accept

Qty

0.1 10-07-196

Number Stamp

W/O:		V	ORK ORDER CHANG	BES			i		- 1		
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	Work Order ID 60530  Suesday, July 13, 2010 11:29:36 AM				I II I					Page 3
Revision ID:	D212-664-20			Accept			Set		Start Stop	1 (61) (14) \$1010 (14) (14) (14)
	Crosstube Tur 7/13/2010 7/26/2010	Start Qty: 1.00 Req'd Qty: 1.00			Cust Item II Customer:	D:		.		
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):	<u> </u>	ite:	Rui	- (	Start Stop	
Sequence ID/ Work Center ID	)	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code		Reje Qty		Reject Insp. Number Stamp
160  QC  Quality Control		QC3- Inspect Part Finish  Memo		0.00			on.	10		07 -19 Q
		Packaging		0.00				<del>-</del>		Awmy - 10-07-1
Packaging Packaging		Memo Identify and Location:	stock in kanhan rack	0.00 CELU				•	!	1

0.00

0.00

180

Quality Control

QC21- Final Inspection - Work Order Release

Memo

MF 10-7-20

W/O:			W	ORK ORDER CHANG	GES				
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Tuesday, July 13, 2010 11:29:40 AM

Work Order ID: 60530

Parent Item:

D212-664-201TRN

Parent Item Name: Crosstube Turning Detail



Start Date: 7/13/2010

Required Date: 7/26/2010

Start Qty: 1.00

Required Qty: 1.00

**Comments:** 

IPP Rev:A 08-03-06 new issue DD verified by:ec IPP Rev B 08.04.02 Removed polish EC verified DD

Component Item	ID/
Item Name	

Replacement Mfg/ Item ID

Purch

Primary Bin Item Location

No

Last Location

Route Seq ID Unit of Measure Hand

Qty on

Qty per Kit Total

Qty Issued

Qty

Date Status Issued

D6006-129

Manufactured

120

Each

43.0000

Crosstube Material

Location	Loc Qty		Loc Code
LG .	43	9	
23970	2	;	
26550	14	,	
34690	11	į	
38338	16	i	

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DART AEROSPACE LTD	Work Order:	40530
Description: Crosstube Assembly (205/212 High Aft)	Part Number:	D212-664-241
Inspection Dwg: D212-664-241 Rev: C		Page 1 of 1

#### FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

	nspection Sheet awing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
	0.200	+/-0.010	0.200	/			
	R0.063	+/-0.010	RO.063				
	2.990	+0.005/-0.000	2.990				
	5.237	+/-0.030	5.237				
	2.600	+0.005/-0.000	2.604				
	2.686	+0.005/-0.000	2.680				
ΕA	2.770	+0.005/-0.000	2-774	7			
SIDE	2.854	+0.005/-0.000	2.858	1,			
0,	2.938	+0.005/-0.000	2.942				
	3.021	+0.005/-0.000	3.025				
	3.133	+0.005/-0.000	3.136	1			
	3.179	+0.005/-0.000	3.184	7			
		./.0.010					
	0.200	+/-0.010	0.200	,			
	R0.063	+/-0.010	RO.063				
	2.990	+0.005/-0.000	2.950				
	5.237	+/-0.030	5.237				
	2.600	+0.005/-0.000	2.604				
	2.686	+0.005/-0.000	2690				<del></del>
8	2.770	+0.005/-0.000	2-771			•	
SIDE	2.854	+0.005/-0.000	2.858				
S	2.938	+0.005/-0.000	2,842				
	3.021	+0.005/-0.000	3.025				*
	3.133	+0.005/-0.000	3./36	7			
=	3.179	0.005/-0.000	3.184				
	124.362	+/-0.020	124.360				
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Measured by:	Audited by:	AWM	Prototype Approval:	N/A
Date: 10.07 19	Date:	10-07-19	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	05.04.27	New Issue (P/O D412-664-201)	KJ/JLM	
В	06.03.09	Tolerance for 5.237 was +/-0.001	KJ/JLM ,	
С	07.05.08	Dwg Rev. updated	KJ/JLM O	<i>Y</i>

W/O:				W	ORK ORDER CHANG	ES						
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item	Qty -241	Qty -241B	Part Number	Description
1	Х		D212-664-241	CROSSTUBE ASSEMBLY (205/212 HIGH AFT)
2		Х	D212-664-241B	CROSSTUBE ASSEMBLY (214 HIGH AFT)
3	1	1	D6006-129	CROSSTUBE
4	2	2	D2940-1	SUPPORT
5	4	4	D3595-063-530	RUBBER CUSHION
6	4	4	MS21920-28	CLAMP (OR MS21920-30)
7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

#### **GENERAL NOTES:**

1) MATERIAL: MANUFACTURED FROM D6006-129

FINISHED LENGTH = 124,362±0,020

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: D212-664-241 = 44.2 lbs (PER IIN-D212-664) D212-664-241B = 44.2 lbs (PER IIN-D212-664)
- PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 5 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2940-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2940-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-28 CLAMPS (OR -30) WITH D3595-063-530 RUBBER CUSHIONS TO SECURE THE D2940-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY RETURN TO UNCONTROLLED COPY ENGINEERING SUBJECT TO AMENDMENT WITHOUT NOTICE

DESIGN	PRE DART AEROSPA	ACE	LTD
REV.	DESCRIPTION	BY	DATE
Α	NEW ISSUE	PH:;	00.12.12
В	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH.	05.02.04
С	REMOVE -1009 ABRASION STRIP, ADD MAGNOBOND 6398, CUSHION, REVERSE CLAMPS	РН	07.03.08
D	REFORMATIREVISE GENERAL NOTES/PART LIST; REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; ADD. 2418 (ZN D4-2, 84-2); REMOVED REF & ADD TOLERANCES (ZN D8-3 & C4-3, C8-3 & A8-3); RELOCATED FLAG #6 PER PAR 08-046 (ZN A5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4	RF	09.09.30

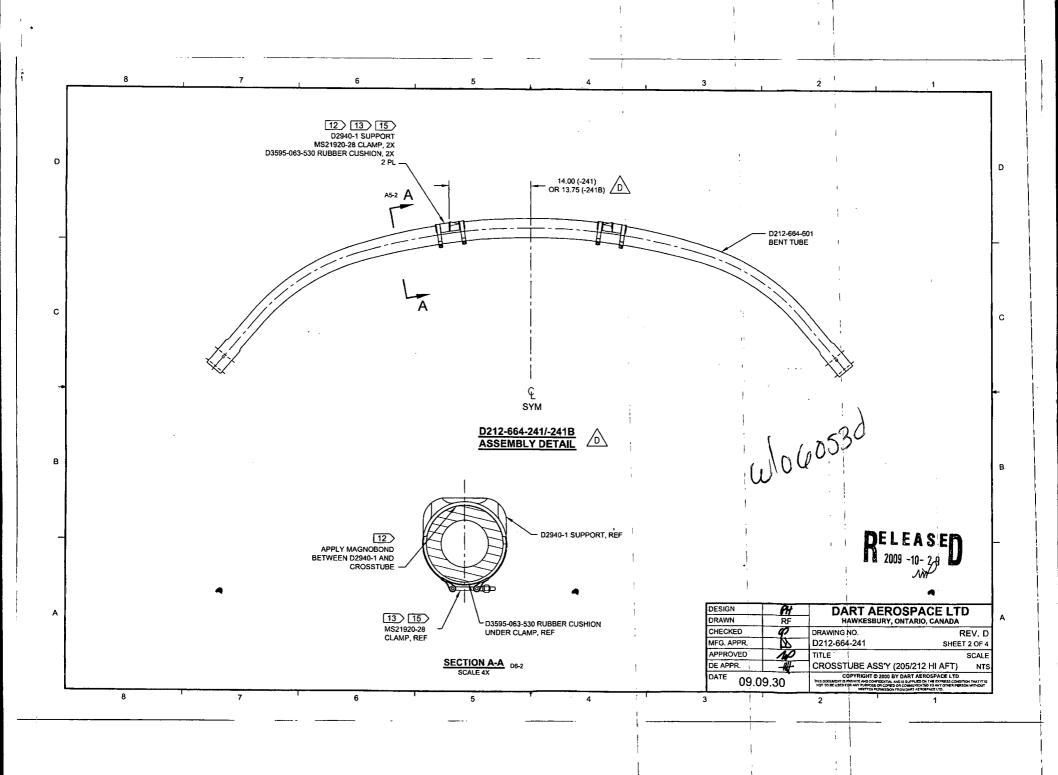
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MFG. APPR.	12	D212-664-241 sh	EET 1 OF 4			
APPROVED	10	TITLE	SCALE			
DE APPR.	#	CROSSTUBE ASS'Y (205/212 HI AFT) NTS  COPYRIGHT 0 2000 BY DART AEROSPACE LTD  THS COCUMENT IS PRIVATE AND COMPENSING AND IS SUPPLIED ON THE EMPRISS CONDITION THAT IT IS				
DATE OO O	0.30					

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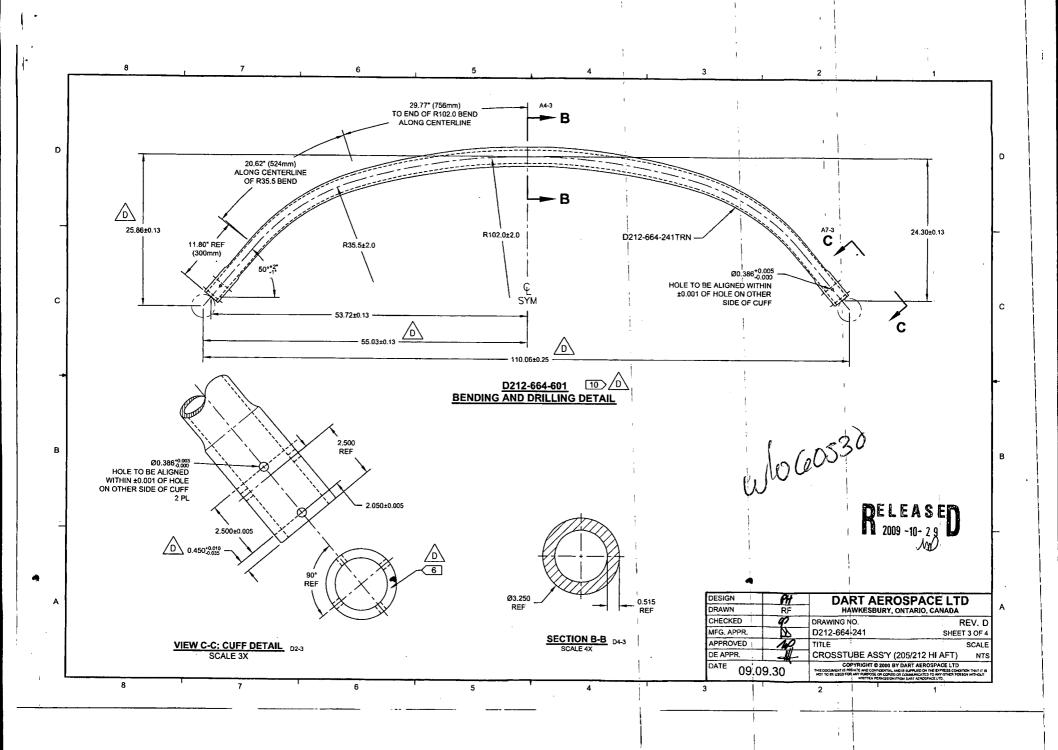
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